

WA Transportation Commission

Transportation Planning - Key to Public Acceptance

by

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November 15, 2005

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Basics

Highways of Statewide Significance (HSS)
are the backbone of our transportation
system

WSDOT owns, designs, builds, operates &
maintains our HSS

Highways are corridors, transit is a mode
of travel – they are not in conflict.

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The Questions

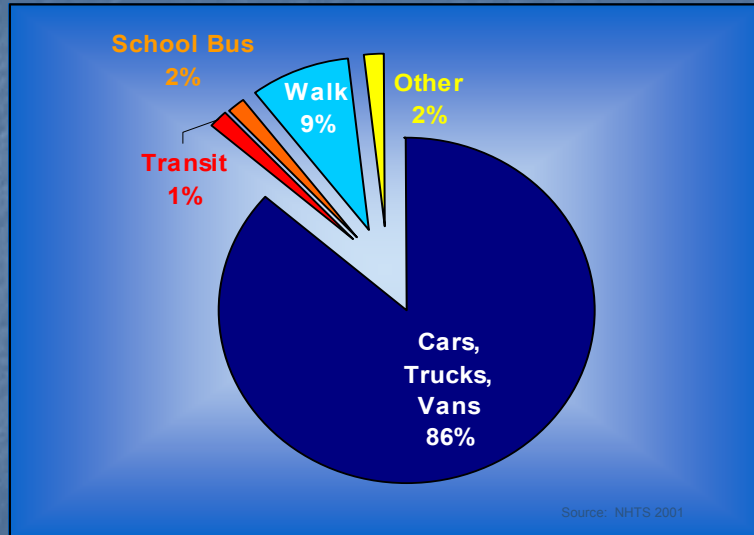
- Why do Americans travel?
- How do Americans travel?
- How does density affect travel?
- How is transit performing?
- Will our regional plan reduce congestion?
- What's happening to air quality?
- Why is there a focus on the work trip?
- How important is working at home?

In other words, know your customer

Data Sources

- USDOT, National Household Travel Survey, 2001 (a 22,000 household sample)
- Census Bureau, 2000 Census
- FHWA, Highway Statistics
- PSRC, Destination 2030 (adopted Metropolitan Transportation Plan), 2004 Review
- National Transit Database
- EPA
- APTA (American Public Transit Association)

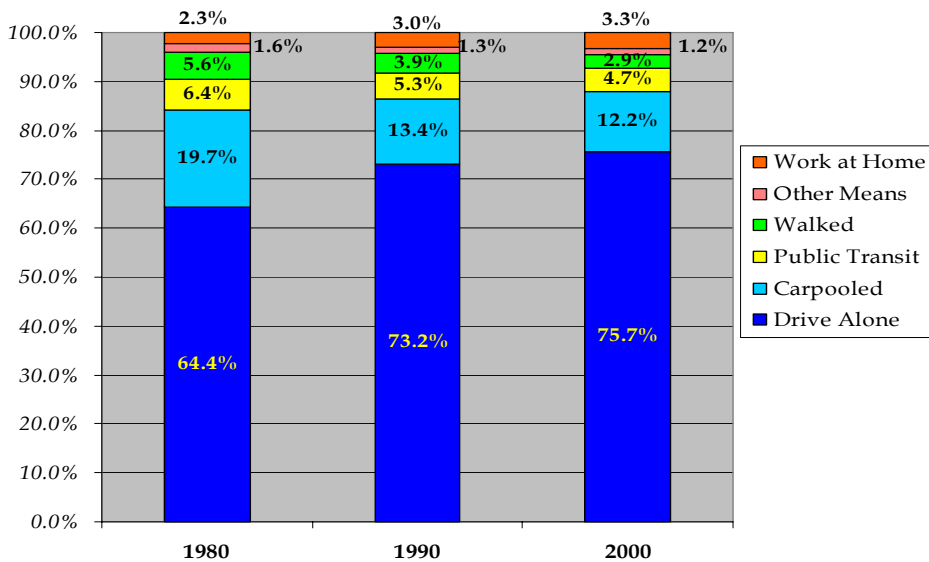
U.S. AVERAGE MODE OF



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Trend of Commute Mode

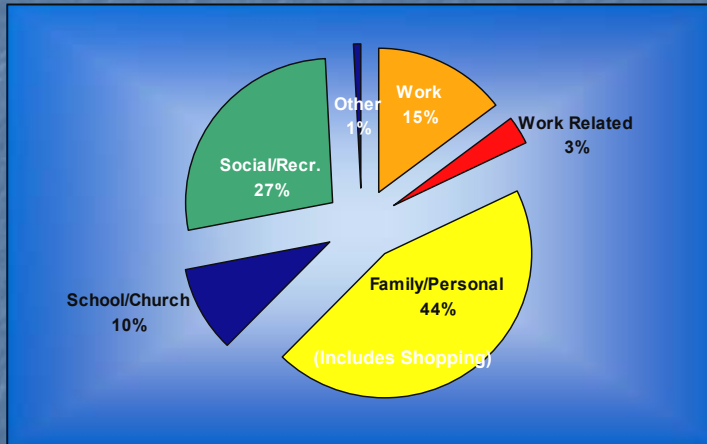


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SOURCE: Census/FHWA. 2103/DATA/CENSUS/COMMUTE MODE 80 TO 2000

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U.S. AVERAGE TRIP PURPOSE

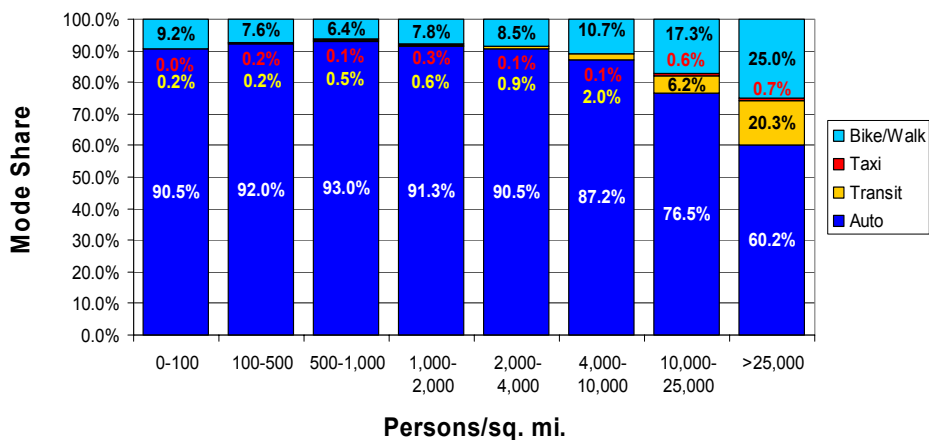


Source: NHTS 2001

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Mode Share vs. Density (National, Urban, without New York area)

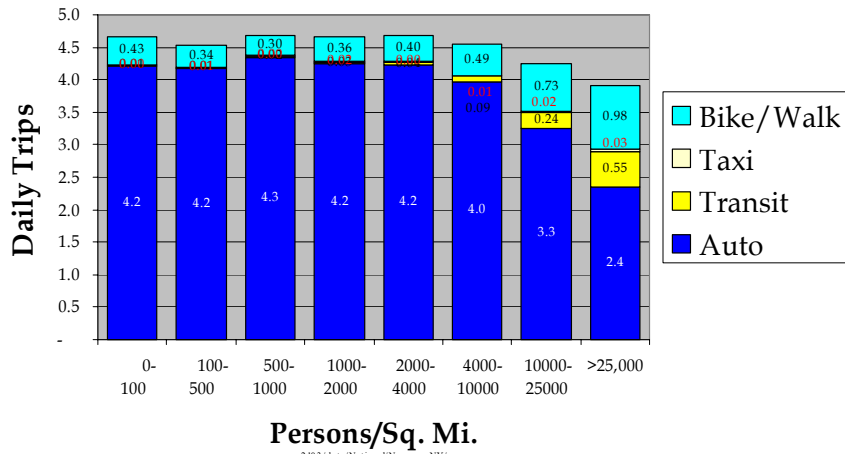


#2103 05 Aug 04 H://2103/Data/National/Mode Share by Density.xls - National Urban w o NY

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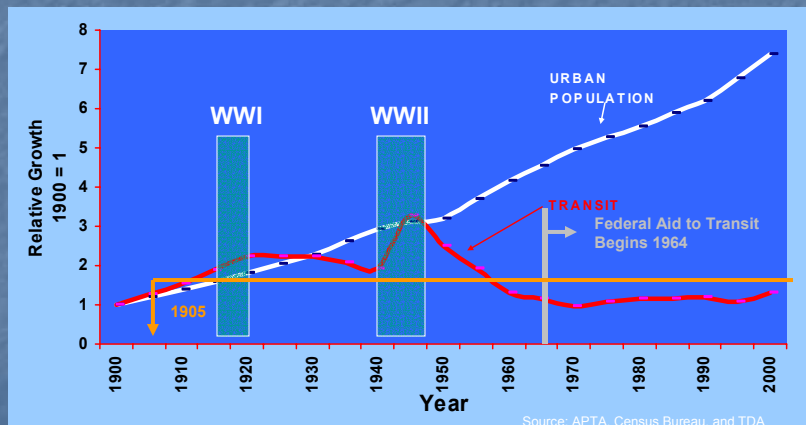
DAILY TRIPS/PERSON (National, Urban, w/o New York area)



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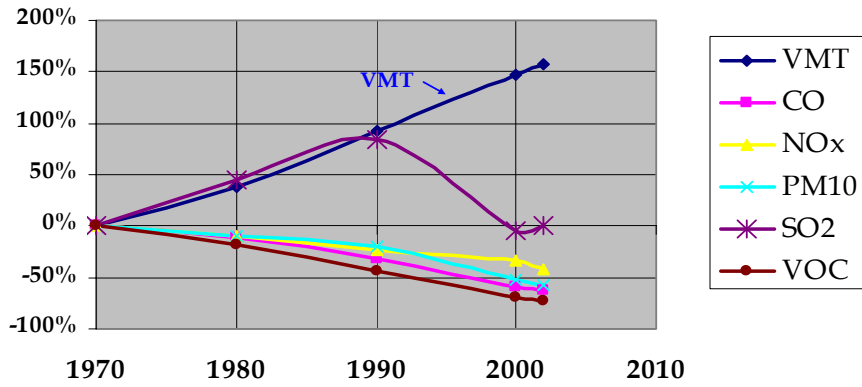
U.S. Transit Ridership Compared to Urban Population



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GROWTH COMPARISON: Vehicle-Miles Traveled (VMT) & Emissions (U.S.)

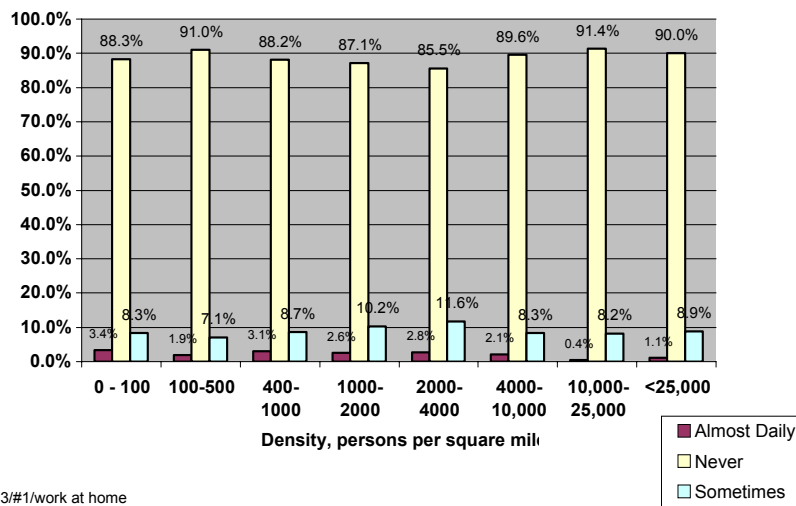


Data Sources: EPA "Trends", FHWA

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Percent Working at Home (West Coast)



2103/#1/work at home

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REGIONAL

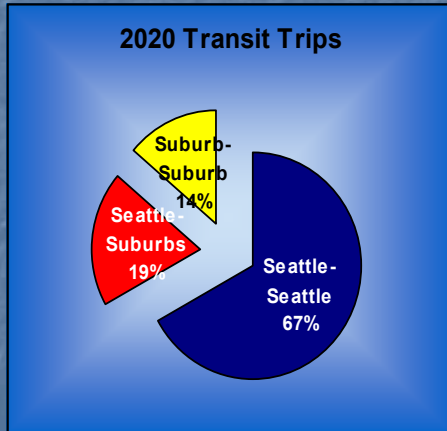
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Transit's Successes

- Elderly and Handicapped
- Downtown Seattle
- University District
- Downtown Bellevue

City of Seattle Dominates Transit Trips



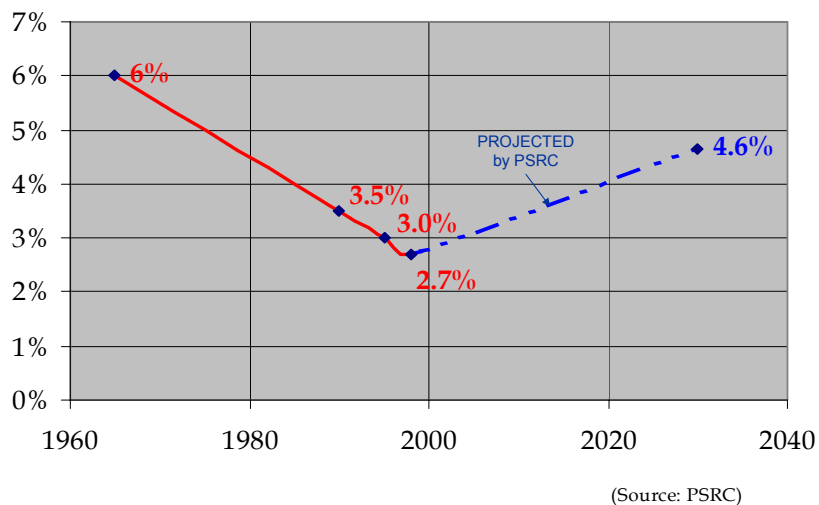
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Another Success: Vanpools



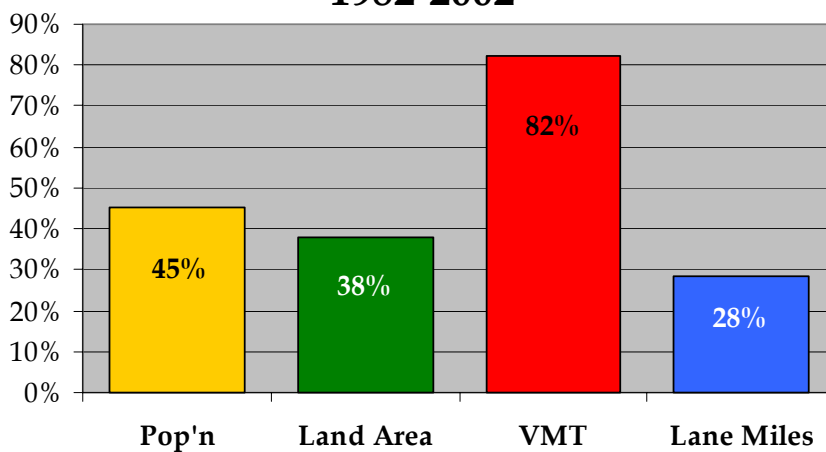
Percent of Daily Person-Trips by Transit (Central Puget Sound)



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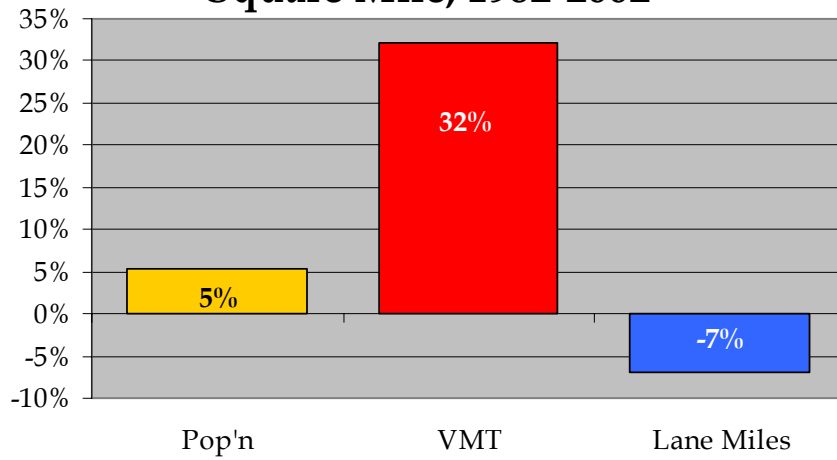
Seattle Urbanized Area Growth, 1982-2002



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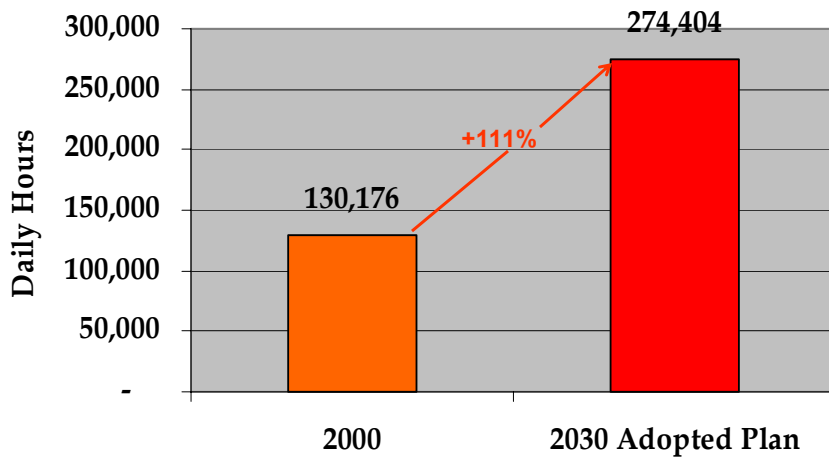
Seattle Urbanized Area Growth Per Square Mile, 1982-2002



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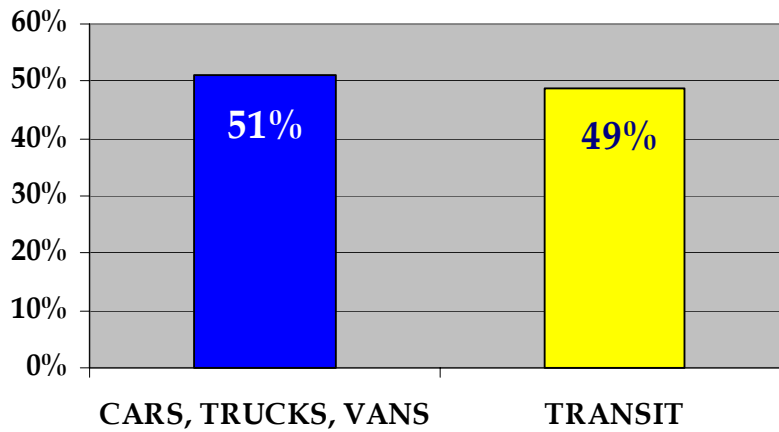
DAILY HOURS OF DELAY (PSRC Metropolitan Transportation Plan)



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**PUGET SOUND PUBLIC INVESTMENT
SHARE THROUGH 2030 (Capital + O&M)**

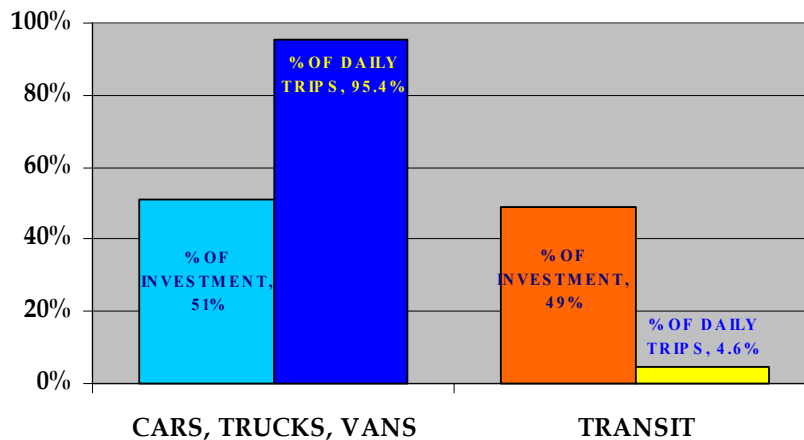


Source: PSRC, 2004 Review

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**PUGET SOUND PUBLIC INVESTMENT
THROUGH 2030 (COMPARED TO MARKET SHARE)**

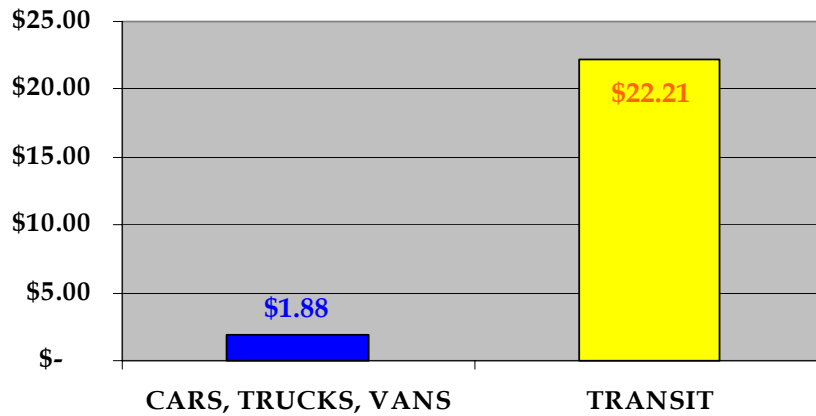


Source: PSRC, 2004 Review

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PUBLIC INVESTMENT PER ADDED PERSON-TRIP, 2000 to 2030 (Puget Sound)

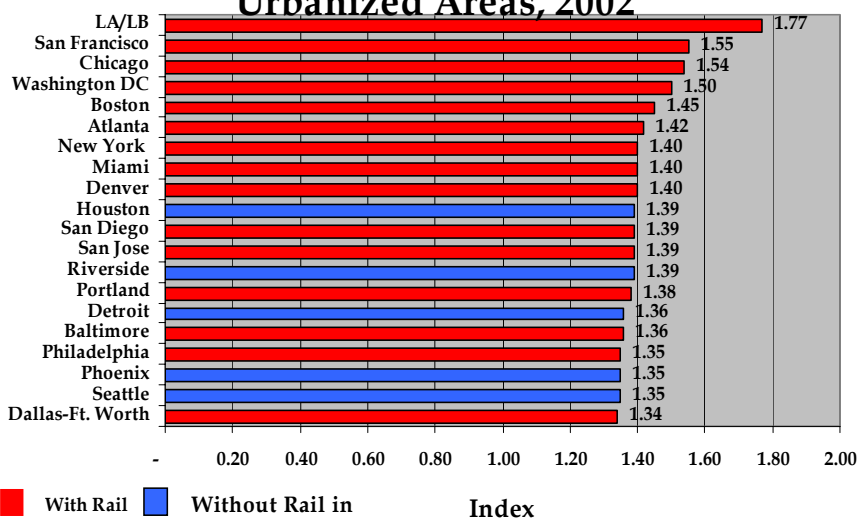


Source: PSRC, 2004 Review and TDA

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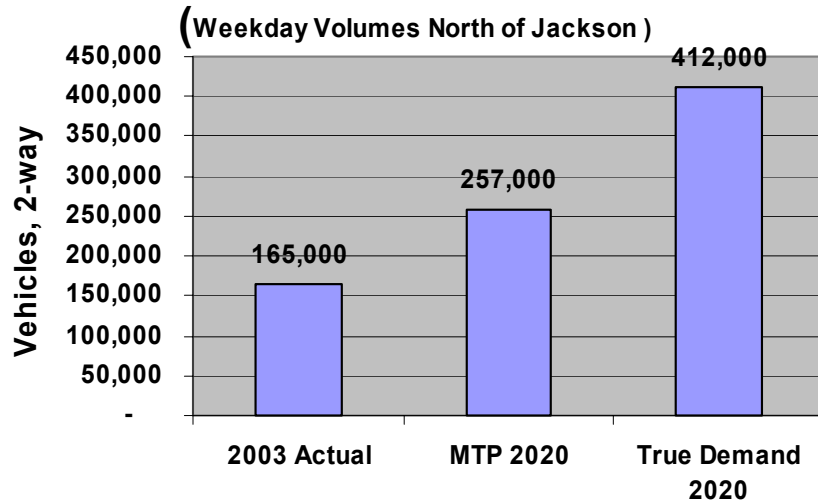
Travel Time Index, 20 Highest-Delay Urbanized Areas, 2002



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I-5 is Broken and Gets Worse



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I-405 Corridor Program

THERE ARE TWO BASELINE CASES FOR COMPARISON:

2020 True Demand: this shows where travelers would be if they were not constrained by the artificial limits of roadway capacity.

2020 No Action: this assumes only continuation of existing programs and completion of those already funded (VERIFY!!)

THE SEVEN THEMES:

Theme 1 - Transportation Demand Management (TDM): reduced transit fares, parking pricing, ridesharing agreements.

Theme 2 - Transit/HOV: add 1 HOV lane in each direction on I-405, direct access ramps, arterial HOV lanes, increase transit service, moderate TDM

Theme 3 - High Capacity Transit: grade separated HCT with feeder buses, arterial HOV/transit priority, moderate TDM

Theme 4 - Arterial Capacity: basic I-405 improvements, expand arterials (including East King County), moderate TDM

Theme 5 - General Purpose Capacity: add 2 general purpose lanes each direction on I-405, widen connecting arterials, other roadway improvements, moderate TDM

Theme 6 - Express Lanes: add 2 express lanes each direction, grade separated, widen SR 167 by 1 lane each direction, other road improvements, moderate TDM

Theme 7A - Roadway Capacity: add 2 general purpose lanes each direction on I-405, expand arterials (more than twice as much as in Theme 5), construct East King County Freeway, other roadway improvements, moderate TDM

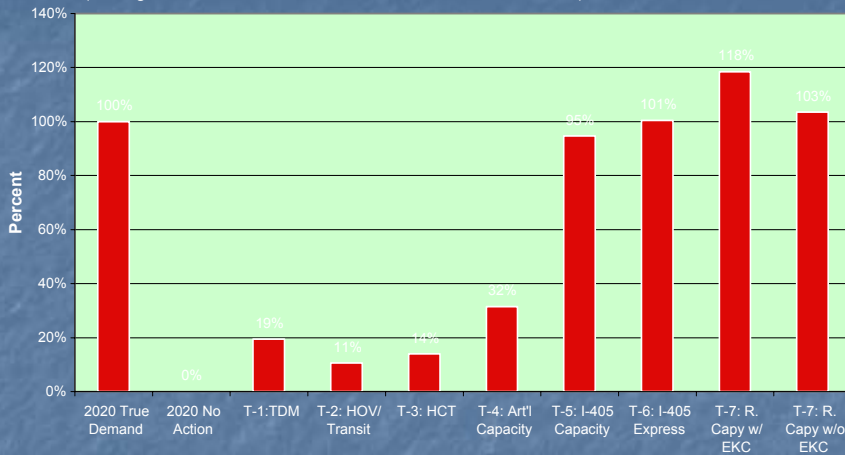
Theme 7B - Roadway Capacity: same as Theme 7A, but omits East King County Freeway.

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PERCENT OF UNMET TRUE DEMAND SERVED BY EACH THEME

(Average of Three Screenlines -- 2020, CAPACITY ADJUSTED)



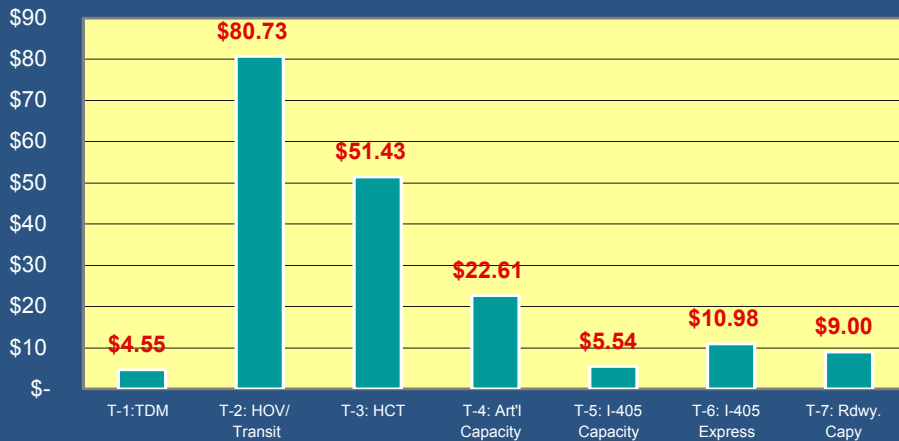
Source: Derived from I-405 Corridor Program Data

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Daily Cost per Added Person Served

Average of 3 Screenlines, Capacity Adjusted Figures, 2020



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more on DENSITY

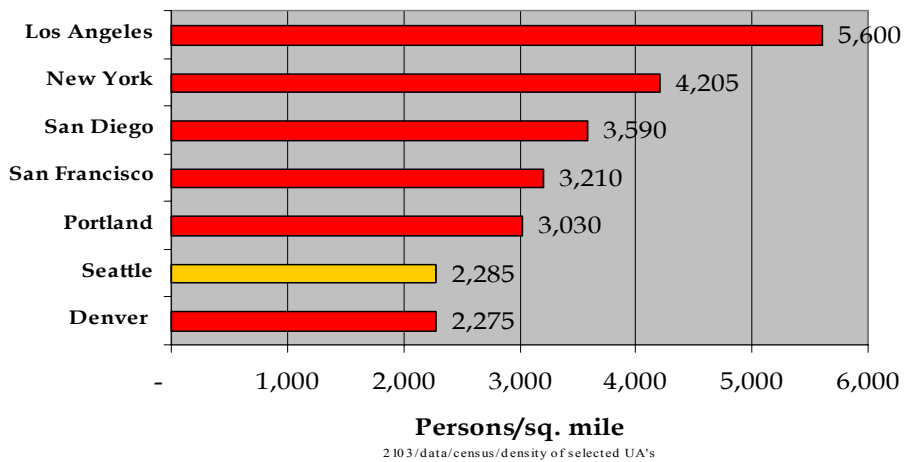
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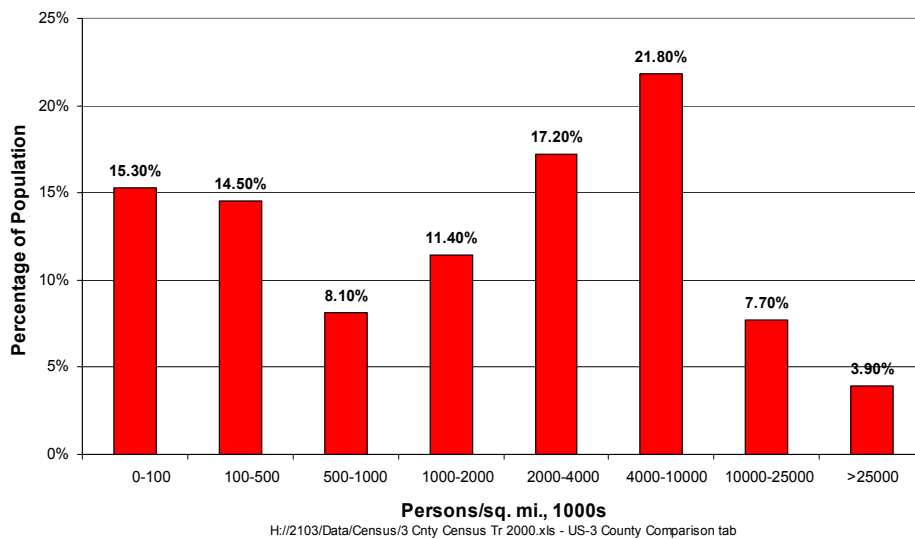
Density of Selected Urbanized Areas (2000)



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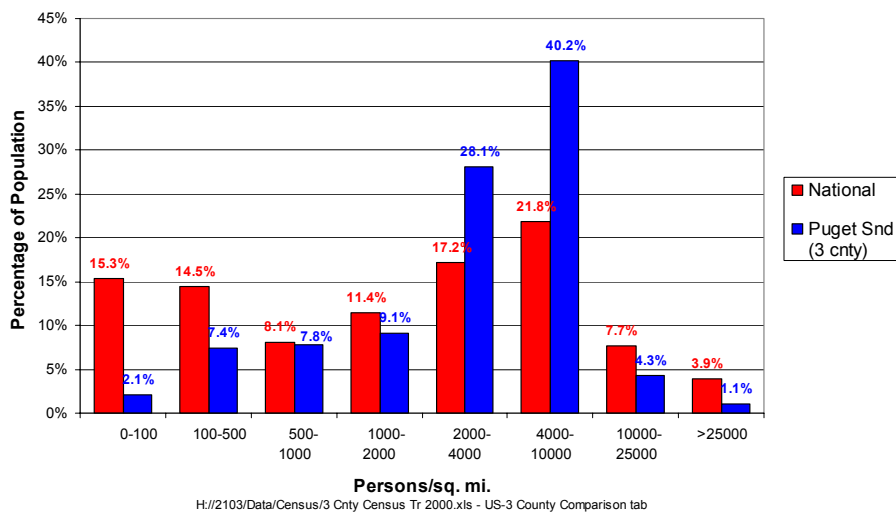
U.S. Population by Density Groups



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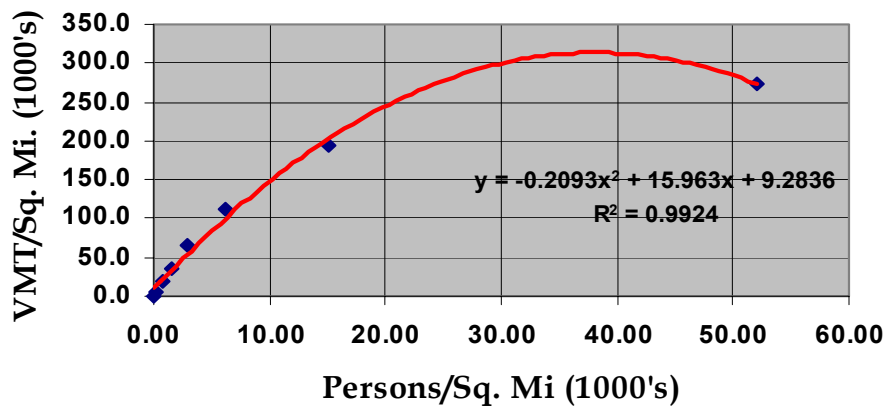
Population by Density Groups for US & Puget Sound (2000, by Census Tract, King/Pierce/Snohomish)



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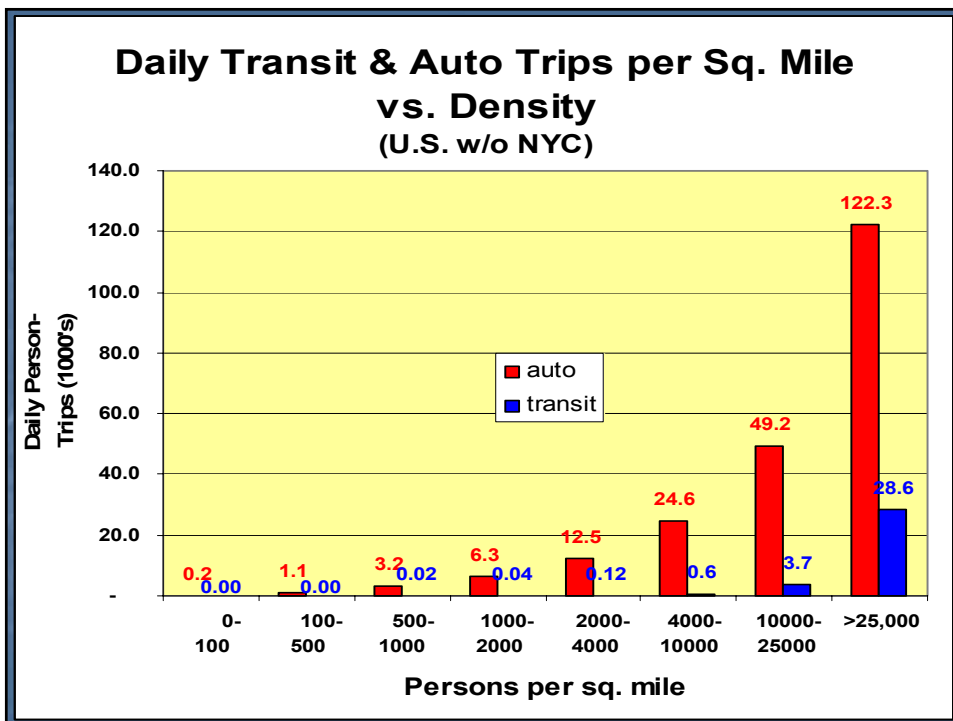
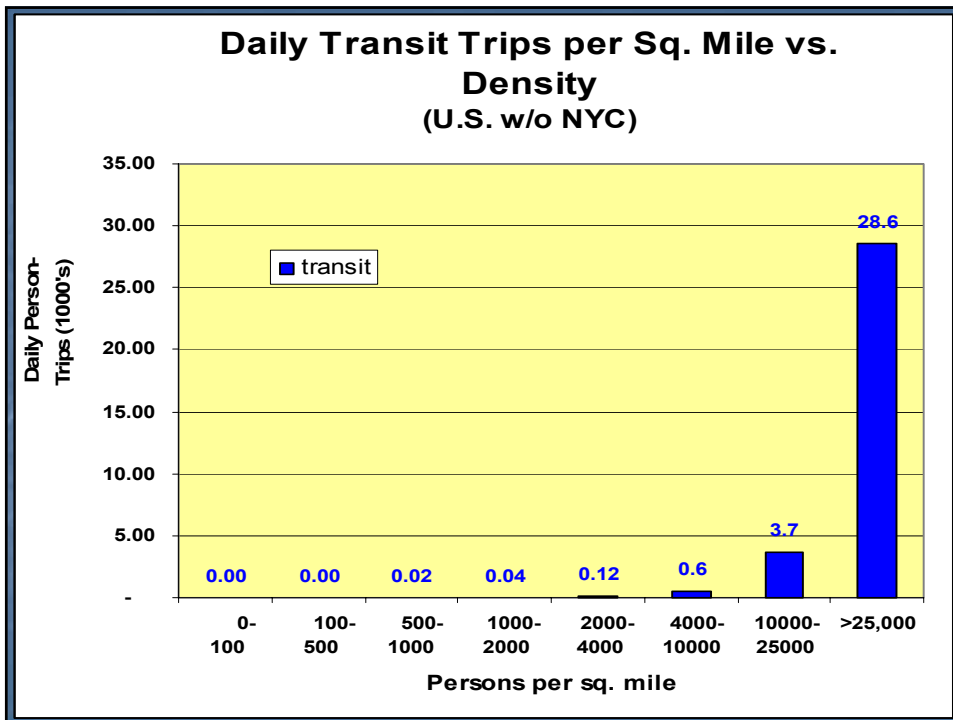
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VEHICLE-MILES TRAVELED vs. DENSITY (2001 NHTS)

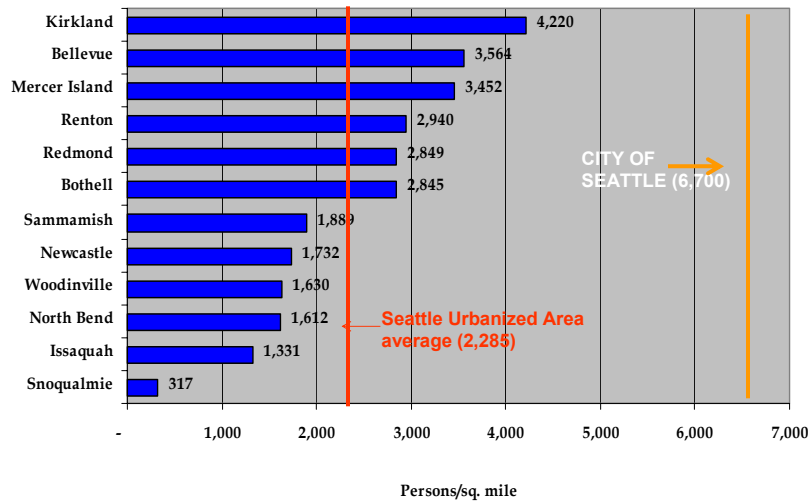


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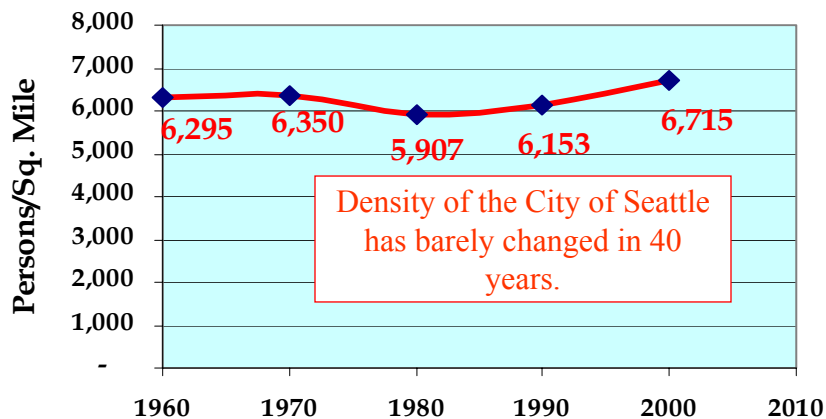
Density of Eastside Cities (2000)



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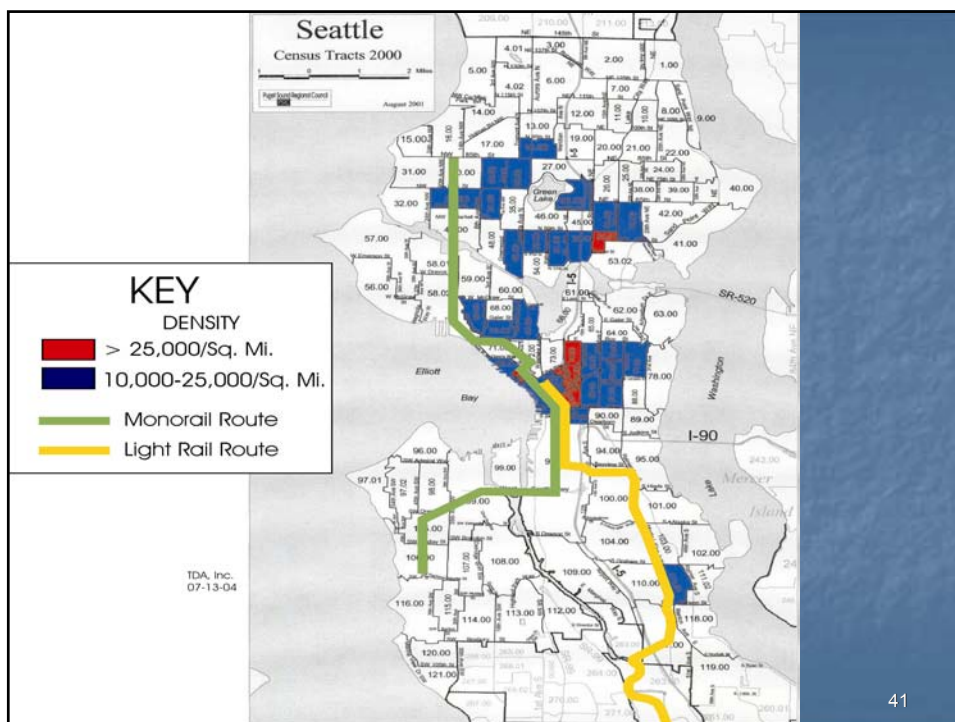
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Trend of Density, City of Seattle



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GET THE PICTURE?

- One success: highway air emissions
- Travel behavior is hard to change
- Highways largely ignored for 3 decades
- Transit's market-share in decline
- By Adopted Plan:
 - delay worsens
 - small mode shifts
 - cars, trucks and vans continue to dominate
- Work trip is small part of problem

Management Changes

- DOT reports to the Governor as of July 1
- Transportation Commission was redirected
- They have an opportunity for a new role in Statewide Transportation Planning.

Importance of Planning

- Key to gaining public acceptance and support
 - (Better to have debate at planning rather than at implementation)
- Can explore all options relatively cheaply
- Based on technical analysis - not public popularity
- Should shorten implementation phase

Key Elements of Planning

- Should start with a Directive - top down with bottom up input.
- Defines common goals and objectives
- Should be a plan for success – not a plan for failure

Nickel Fund Successful Criteria

- **Safety benefits, including high accident locations**
 - (Narrow definition of Safety - most all projects help)
- **Measurable congestion relief benefits**
- **Freight benefits**
- **Direct economic development benefit**
- **Transit/pedestrian benefit**
- **Water/habitat fix**
- **Partner funding**
- **Special federal program funding**
- **Cost benefit**

Challenges of Planning

- Different Roles & Missions
 - RTPD – 14
 - MPO – 11
 - TMA – 3
- One RTPD has 85% of infrastructure needs
- State is the only agency that has the overall responsibility to make sure that our HSS are expanded adequately to support our quality of life and economic development.

...the end